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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/823,902

04/14/2004

Charles W. Gardner JR.

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11/18/2004

DUANE MORRIS LLP

P. O. BOX 1003

305 NORTH FRONT STREET, 5TH FLOOR

HARRISBURG, PA 17108-1003

EXAMINER

EVANS, FANNIE L


ART UNIT

PAPER NUMBER

2877

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/823,902	GARDNER ET AL.	
	Examiner	Art Unit	
	F. L. Evans	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2004 and 20 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 57-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 70-75, 78-80 and 82-84 is/are allowed.
- 6) ☒ Claim(s) 57-59, 63-69, 76 and 77 is/are rejected.
- 7) ☒ Claim(s) 60-62 and 81 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/20/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED SUPPLEMENTAL ACTION

The Preliminary Amendment

Receipt is acknowledged of the preliminary amendment filed on August 3, 2004. See the Examiner's Interview Summary mailed on September 23, 2004.

The Information Disclosure Statement

The prior art cited in the information disclosure statement filed on September 20, 2004 has been considered. *Numerical Recipes in C* (William H. Press et al.) and *Remote Sensing for Agriculture, Ecosystems, and Hydrology* (SPIE, Vol. 3499) have not been fully considered. *Numerical Recipes in C* contains more than 900 pages and *Remote Sensing for Agriculture, Ecosystems, and Hydrology* contains 48 papers, totaling more than 440 pages. Applicant failed to specify the pertinent portions of these documents to be considered.

Warning of Duplicate Claims

Applicant is advised that should claim 66 be found allowable, claim 68 will be objected to under 37 CFR § 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Objections - 37 CFR § 1.75

Claim 81 is objected to under 37 CFR § 1.75 as being a substantial duplicate of claim 79. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim

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to object to the other as being a substantial duplicate of the allowed claim. See MPEP

§ 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 63, 64, 76 and 77 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The lack of an antecedent for "said information" in line 2 of claims 63, 64, 76 and 77 renders these claims and any claim dependent therefrom indefinite. Claims 63 and 63 should depend from claim 62. Claims 76 and 77 should depend from claim 75. Correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 57, 58, 59, 65, 66, 67, 68, and 69 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5, 6-11, 14-18, 21, 39,

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22-38, 39, and 40, respectively, of U.S. Patent No. 6,765,668 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipate the claims of the application.

With respect to claim 57 of the application, claim 5 of the patent sets forth a method for forming an image of an organic object comprising: a) illuminating said object with light in the absence of a bioconcentrator which is capable of forming a complex between an analyte and a biological (step (a) of patent claim 5); b) forming an image of said organic object using Raman shifted light from said object (step (b) of patent claim 5); c) analyzing said Raman shifted light image for patterns characteristic of said organic object (step (c) of patent claim 5).

With respect to claim 58 of the application, claims 6-11 of the patent sets forth a method for forming an image of an object further comprising passing said Raman shifted light through a filter selected from the group consisting of a FAST fiber array spectral translator (claims 6 of the patent), a Fabry Perot angle tuned filter (claim 7 of the patent), an acousto-optic tunable filter (claim 8 of the patent), a liquid crystal tunable filter (claim 9 of the patent), a Lyot filter (claim 10 of the patent), and an Evan's split element liquid crystal tunable filter (claim 11 of the patent).

With respect to claim 59 of the application, claims 14-18 set forth a method for forming an image of an object further comprising passing said Raman shifted light through an interferometer selected from the group consisting of a polarization-independent imaging interferometer (claim 14 of the patent), a Michelson interferometer (claim 15 of the patent), a Sagnac interferometer (claim 16 of the patent), a Twynam-Green interferometer (claim 17 of the patent), and a Mach-Zehnder interferometer (claim 18 of the patent).

With respect to claim 65 of the application, claim 21 of the patent sets forth a method for

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forming an image of an object further comprising forming an image of at least one anthrax spore.

With respect to claim 66 of the application, claim 39 of the patent sets forth a method for forming an image of an object further comprising forming an image of an object selected from the group consisting of filoviruses, naviruses, alphaviruses.

With respect to claims 67 of the application, claims 22-38 of the patent sets forth a method for forming an image of an object further comprising forming an image of an object selected from the group of microorganisms consisting of protozoa (claim 22 of the patent), cryptosporidia microorganisms (claim 23 of the patent), *Escherichia coli* (claim 24 of the patent), *Escherichia coli* 157 microorganisms (claim 25 of the patent), Plague (*Yersinia pestis*) (claim 26 of the patent), Smallpox (*variola major*) (claim 27 of the patent), Tularemia (*Francisella tularensis*) (claim 28 of the patent), Brucellosis (*Brucella* species) (claim 29 of the patent), *Clostridium perfringens* (claim 30 of the patent), *Salmonella* (claim 31 of the patent)), *Shigella* (claim 32 of the patent), Glanders (*Burkholderia mallei*) (claim 33 of the patent), Melioidosis (*Burkholderia pseudomallei*) (claim 34 of the patent), Psittacosis (*Chlamydia psittaci*) (claim 35 of the patent), Q fever (*Coxiella burnetii*) (claim 36 of the patent), Typhus fever (*Rickettsia prowazekii*) (claim 37 of the patent), and *Vibrio cholerae* (claim 38 of the patent).

With respect to claim 68 of the application, claim 39 of the patent sets forth a method for forming an image of an object further comprising forming an image of an object selected from the group consisting of filoviruses, naviruses, alphaviruses.

With respect to claim 69 of the application, claims 40-50 of the patent sets a method for forming an image of an object further comprising forming an image of an object selected from the group of consisting of *Giardia* (claim 40 of the patent), *Candida albicans* (claim 41 of the

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patent), *Enterococcus faecalis* (claim 42 of the patent), *Staphylococcus epidermidis* (claim 43 of the patent), *Staphylococcus aureus* (claim 44 of the patent), *Enterobacter aerogenes* (claim 45 of the patent), *Corynebacterium diphtheriae* (claim 46 of the patent), *Pseudomonas eruginosa* (claim 47 of the patent), *Acinetobacter calcoaceticus* (claim 48 of the patent), *Klebsiella pneumoniae* (claim 49 of the patent), and *Serratia marcescens* (claim 50 of the patent).

Allowable Subject Matter

Claims 60-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 63, 64, 76 and 77 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112, 2nd paragraph, set forth in this Office action.

Claims 70-75, 78-80 and 82-84 are allowed over the prior art of record.

As to claims 60 and 61, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for forming an image of an organic object comprising step c) of independent claim 57 and the step of providing spatially separated Raman spectra, in combination with the rest of the limitations of the claims.

As to claim 62, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for forming an image of an organic object comprising step c) of independent claim 57 and the steps of gathering information and forming a second image, in combination with the rest of the limitations of the claim.

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As to claim 70, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for forming an image of one of a plurality of organic objects comprising step d), in combination with the rest of the limitations of the claim.

As to claim 83, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for forming an image of one of a plurality of pathogenic microorganisms comprising step d), in combination with the rest of the limitations of the claim.

As to claim 84, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for forming an image of an organic object comprising step c), in combination with the rest of the limitations of the claim.

Additional Prior Art

Lewis et al (Re. 36,529) disclose a method of forming an image of organic objects using Raman shifted light from the organic objects. Applicant's attention is directed to the paragraph bridging columns 12 and 13 and lines 38-59 in column 13 of Lewis et al.

Fax/Telephone Numbers

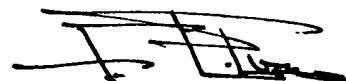
Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The fax number for Technology Center 2800 is (703) 872-9306 for regular and After Final communications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner whose telephone number is (571) 272-2414. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr., can be reached on (571) 272-2800 ext 77.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



F. L. EVANS
PRIMARY EXAMINER
ART UNIT 2877

file
November 9, 2004